

that "if a screw steamer and cargo, together weighing 800 or 1,000 tons, can be impelled against wind and tide, through a dense body like water, by a screw propeller, at stern, of three comparatively small fans, an elastic balloon and gig, such as that described, might be propelled at an inconceivable velocity, and in a straight course through thin air, by a screw and fans of canvas, with a helm, if necessary, added, or the screw itself acting as such on a pivot or groove." It must be recollected, however, that the thin air which presents so little resistance to progression, also presents as little purchase to the means of progression.

Another correspondent, "E. E. M. Civil Engineer," writes to us that he has rendered a plan of his for traversing the air without the aid of gas at all, so complete that "it only awaits practical adoption to test its real merits;" but he complains that Government will not grant him £4,000 for that purpose. We fear that "E. E. M." knows very little of such worldly affairs as those of Government grants, if he ever expected as many pence as the pounds he requires, without both strong interest and equally strong evidence of that very practicability which he requires Government to test. "E. E. M.'s" invention, he tells us, is expected to travel upwards of 100 miles an hour, either close to the ground or at any elevation; can be raised or lowered at pleasure, or directed in a straight line, and made to descend at any precise spot with the most unerring certainty; will carry 30 or 40 persons, with provisions, luggage, &c., and will have sleeping berths, and other conveniences, like those of a first-class steam-vessel: compelled to descend in the ocean, it will float with perfect safety: finally, it is expected to accomplish the aerial voyage from London to New York in two or three days.

#### FOREIGN INTELLIGENCE.

**French Health of Town Commissions.**—The great example started by England in this most important new social measure, begins to be extensively imitated on the Continent, whose less formal laws allow a still more decided way of procedure for the public good. On the 1st of March last the commission *des logements insalubres* at Lille has pronounced its judgment on 340 cellars (*cares*), and 469 lodgings, submitted to its arbitration. Of these 212 cellars have been condemned as unfit for habitation. The 128 cellars not condemned will, however, not be allowed to be inhabited, till after having undergone reparation and salubrication (*assainissement*), according to the instructions of the commission. Of the 469 lodgings examined, 86 have been condemned as incapable of being salubricated. 393 lodgings will also not be inhabited till after having undergone the above process. Independent of these decisions, the commission of Lille has ordered 135 items of sanitary improvements in the shape of cleansing of sewers, paving of courts and corridors, draining of water, ventilation of staircases, &c. Most of the proprietors have (be it said to their credit) cheerfully submitted to these enactments: in other cases, the commission has ample power given to it to compel parties, who will live and luxuriate on the sufferings and death of others.

**Alimentary Statistics of Working Men.**—According to some recent observations of M. Gasparin, in Paris, the complete nourishment of the human organism requires the presence of certain primary principles,—azote, carbon, hydrogen and oxygen, chlorine, sulphur, lime, magnesia, soda, potash, iron, &c. The quantity of azote sufficient to keep a person in *status quo*, without doing any work, is 20 grammes for every 100 kilogrammes (pounds) of his weight; of carbon, 422 grammes for every 100 kilogrammes; hydrogen and oxygen, sulphur, magnesia, phosphorus, &c., will be found in sufficient quantity in any sort of food (with drink) generally taken. One substance however, chloride of sodium (common salt) must be superadded to any sort of human food, in the ratio of 17 grammes of salt for every 100 kilogrammes of weight. The azote is yielded by meat, milk, the different sorts of grain, and

the legumens (peas, beans, &c.); the carbon, by the fats, the alcohol, &c. But the case stands quite different with working people. A hard-working man will require of azote 23 grammes, carbon 309 grammes. The fats seem to become the more necessary, the farther we go North. Such as are inclined to take fermented liquor, should, according to the authority of M. Gasparin, take never more than a quantity which contains 1-15th of a litre (pint) of alcohol: to avoid overcharging the stomach, no one meal should be of more weight than 175 kilogrammes. M. G. thinks also, that the potato disease will lead the people to the use of maize, whose nourishing and strengthening properties are of a high order.

**A new Species of European Antiquities.**—Professor J. Kollao, of Vienna, is about to publish an extensive work on the *Slavian antiquities of Italy*—as well as a description of the Pagan divinities and Slavian mythological monuments found by him in Mecklenburg. The Duke of Mecklenburg pays the expense of this costly work.

**Projects about the Berlin Academy of Arts.**—[*Academie der Künste*.]—A most strange, novel, yet not quite objectionable plan for remodelling the Berlin Academy of Arts, is said to have been entertained by the secretary of Public Instruction, M. Ladenberg. The plan comprises a general fusion of all art branches into one teaching and executing body. M. de L. proposes, that the committee of the academy should comprise painters, sculptors, architects;—and that also poetry (!) and the dramatic arts should be there represented. Besides this, associations of artists (*Künstler-Genossenschaften*) were to be established, which ought to receive—like in the middle ages—regularly affiliated members, and who should be also represented in the councils of the academy. The committee to be connected with, and superintend three different colleges or schools,—one for the arts, properly so called,—one for music and theatres.

Professor Begas is commissioned by the King of Prussia to paint for the Royal Gallery the portrait of the late Meyerbeer. From the manner in which that artist had seized and rendered that of Alexander Humboldt, great expectations may be raised at this new performance.

#### ATTEMPT FOR A NEW STYLE OF ARCHITECTURE.

PRIZE PROGRAMME OF THE MUNICH ACADEMY OF ARTS.

CONSIDERING the great buildings erected of late years in the Bavarian capital, in their great ensemble, we shall find, that although no new style of architecture has resulted therefrom, yet its whole history is displayed, as it were, in most faithful and gorgeous delineations. Thus the Greek or Architrave style of straight lines is exhibited in the Glyptotheka, and the hall opposite to it, as well as in the throne-hall of the palace, turned towards the royal gardens, the latter the master work of M. de Klenze. The Roman style of the arch, vault, and pilasters is figured in the interior of the Glyptotheka and the triumphal arch. The Roman-Christian style, with its simple columns of Byzantine proportions and capitals, we find in the peristyle of the church of St. Bonifacius. The Florentine palace-style is exemplified in the royal residence towards the Marxplatz, and in the library, whose front resembles the Palazzo Riccardi. The hall of warriors (*Feldherrenhalle*) is a fair re-modelling after the graceful and almost lofty Loggia dei Lanzi, in Florence, and makes the ultimate transition to the new Roman style of palace architecture.

To crown, therefore, endeavours so honourably begun and continued, the Royal Academy of Fine Arts have put forth a programme for the sake of further progress. It bears the title "Prize Competition for the Plan of a Building destined for a higher culture and instruction establishment (*Bildung und Unterricht-Anstalt*). It is accompanied by a lithographed plan of the proposed site of the building, and a memoir explaining the spirit and intention of the proposed undertaking. It

embodies, first, the idea "that in no branch of art the searching after a new, rational, and time-appropriate development has been so strong and determinate as in architecture." Some, it is true, have only endeavoured to re-pristinate old building styles, and thus to gain, by a combination of the elements and peculiarities of these, a new principle. Still, it seems, that the authors of the programme are themselves not quite sure on that point, as they appeal to the experience of after times to know, whether a new style be really possible. They start the question, "whether that tendency of our times to organise every relation and force of national life will be available to architecture.—To co-operate in this tendency, the above prize offers an appropriate occasion, as it affords artists an opportunity of making an experiment in a practical execution of corresponding worth and magnitude." Although it cannot be doubted, that "an expressive and beautiful work of art" will result, yet, whether "the desire after a new style of architecture will be at once achieved" is to be seen. The competitors will have "full liberty to use the existing building styles and their ornamentations." Interesting is further the remark—that we live in a time of thought (!) and investigation, and that "also in the province of architecture, we have to leave the path of unconsciousness and naturality (*Natur-Würdigkeit*),—the fundamental idea of our epoch being the tendency after freedom, and an unshackled use of physical and moral powers and their development."

The programme has elicited some weighty and interesting commentaries, the writers of which express the same doubt, whether a new style of architecture be possible, and hint at the many doleful errors present mankind has already got itself into, by wishing to bring forth things quite new and unheard-of. The three prizes offered by the Munich Academy of Fine Arts consist of 4,000, 2,000, and 1,500 florins respectively, which on the Continent are considerable. The period fixed, however, being very proximate (31st July next), is not considered adequate to such an enterprise. It will, probably, be prolonged hereafter.

#### THE SEA-WALL OF PENMAEN MAWR.

At a recent meeting of the Institute of Civil Engineers, Mr. H. Swinburne read a paper descriptive of the "Sea-walls of the Chester and Holyhead Railway at Penmaen Mawr."—These walls were described as extending over a length of one mile and a quarter, sustaining a terrace beneath the steep slope of Penmaen Mawr, through the rocky headland of which the railway was carried by means of a tunnel, about one-eighth of a mile in length. This terrace was partly cut out of the cliff on the east side of the headland, and on the west side, for a distance of 350 yards, it was wholly formed of embankment, beyond which there was a cutting about 110 yards in length, followed by 220 yards of terrace; then another cutting about 350 yards in length, succeeded by an embankment retained on the seaward side by a wall, about 200 yards of which was within the reach of high tides. The original design of these walls consisted of a plain retaining wall, nearly triangular in section, 3 feet thick at the formation level, with a straight face battering 3 inches per foot, the back being vertical. The parapet was to have been formed of a small breast wall 3 feet higher than the level of the rails, and 2 feet thick. The masonry was specified to be "coursed walling," squared with the pick; and the face to consist of one header and two stretchers alternately. The works were commenced in the autumn of 1845, but, after two months' experience on the coast, it was thought advisable to deviate from the original design of a straight face to the wall, and to substitute an arc of a circle of 60 feet radius, with a slightly overhanging parapet, and, to prevent the great increase of masonry which would have resulted from this alteration, the back of the wall was also curved. This was afterwards found to be impracticable, and the section was, therefore, materially altered. The nature of the mate-